

## **Bangladesh**

### **Land O'Lakes, Inc.**

#### **Summary of Findings**

School meal distribution began on April 15, 2002. The goal of this Land O'Lakes, Inc., (LOL) project is to provide a daily ration of milk and a fortified wheat biscuit to 200,000 of Bangladesh's most needy school children. Overall attendance increased 29 percent, with a 30-percent increase for girls, in the first five weeks of meal distribution. Project resources will be used to address educational quality issues such as teacher shortages, lack of teaching materials, and the need for school supplies for children. Effective collaboration with the Government of Bangladesh and other donors will contribute to project sustainability. Monetization of U.S. agricultural commodities was successfully undertaken, although the proceeds were lower than projected because of declining international prices and the Government of Bangladesh's policies to restrict imports. This Global Food for Education (GFE) school feeding project will continue through March 2003.

#### **Country Overview**

Bangladesh is one of the poorest, most densely populated countries in the world. The government's development efforts for several years have focused on poverty reduction. Social services and development programs have received increased funding, the birthrate has declined to 1.4 percent, and a model micro-credit movement flourishes.<sup>39</sup> However, the number of people living in poverty remains very high. Half the Bangladeshi people live in poverty today, lacking enough income to purchase the minimum calories necessary for human survival. One-third of the population lives in extreme poverty, defined as those who could not purchase even two-thirds of the calories necessary for survival.<sup>40</sup> High population density, numerous natural disasters, low educational attainment, weak governance, high levels of corruption, and limited financial resources all contribute to the existing situation.<sup>41</sup>

Half of all children in Bangladesh under 5 years old are underweight for their age. About one-fifth die before their fifth birthday, and two-thirds of these deaths are related to malnutrition.<sup>42</sup> Children's malnutrition in Bangladesh increases by about 23 percent between age 5 and 6, when the children start primary school.<sup>43</sup>

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<sup>39</sup> UNICEF, Country Profile, Bangladesh.

<sup>40</sup> Bangladesh Bureau of Statistics (BBS), Household Expenditure Survey, 1995-1996.

<sup>41</sup> UNICEF, Country Profile, Bangladesh.

<sup>42</sup> IFPRI, "Food for Education-Feeding Minds Reduces Poverty" Washington DC, October 2001.

<sup>43</sup> Child Nutrition Survey of Bangladesh 1995-1996, Bangladesh Bureau of Statistics, December 1996.

The combined effect of malnutrition and micronutrient deficiencies can reduce a child's learning ability. The provision of nutritious food supplements, such as milk and biscuits fortified with vitamins and minerals, can greatly improve their learning ability and health.

Bangladesh spends \$28 per child per year on education, with international donor support accounting for 50 percent of the budget.<sup>44</sup> The Government of Bangladesh has been successful in expanding access to primary education but faces major challenges with educational quality. The number of primary schools increased by about 41 percent between 1990 and 1995.<sup>45</sup> When the government began providing free primary schooling in 1992, enrollment increased by almost 6 percent a year for girls and 5 percent for boys.<sup>46</sup> According to the World Bank, gender disparity in primary school enrollment has disappeared, and almost 100 percent of primary-school-age girls are enrolled in school.<sup>47</sup>

The poor quality of education is also a limiting factor for educational attainment. Seventy-three percent of children attending school complete primary school.<sup>48</sup> However, only 43 percent of primary school students attained minimal standards for literacy and numeracy in 1997.<sup>49</sup> Less than 2 percent of primary students achieve all the minimum basic primary school competencies established by the Government of Bangladesh,<sup>50</sup> and it takes an average of six years for a child to complete the 5-year primary school cycle.<sup>51</sup> Secondary school enrollment is only about 20 percent of the eligible student population.

Many children living in "high food-insecure areas" are considered "ultra-poor" and are frequently absent from school or drop out in order to look for food or income. In 1993, Bangladesh was one of the first countries in the world to implement a pilot Food for Education (later named Food for Schooling, or FFS) program. By 2000, the pilot program covered 17,811 public and private schools, accounting for about 27 percent of all primary schools in Bangladesh. Eligible students and their families received food grains through the FFS program. To maintain their eligibility, children had to attend 85 percent of their classes each month.<sup>52</sup>

For reasons not entirely clear, the Government of Bangladesh has decided to phase out the FFS program by June 2002 and begin a Cash for Education program. The criteria will be the same, but in addition to wheat and rice some of the students will receive money. There is some concern regarding how the family will spend the cash and whether food will reach the neediest members of the households. Like most donors, the World Food Program (WFP) and USDA still prefer to offer food directly to needy recipients.

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<sup>44</sup> Interview with World Food Program Staff, Dhaka, Bangladesh. February, 2002

<sup>45</sup> Intensive District Approach to Education for All, UNICEF, 1998.

<sup>46</sup> IBRD, 1995, Experiences with Economic Reform: A Review of Bangladesh's Development.

<sup>47</sup> "Our Dream: A World Free of Poverty," World Bank. [www.worldbank.org/bangladesh](http://www.worldbank.org/bangladesh).

<sup>48</sup> Ibid.

<sup>49</sup> Getting Started. A.K. Jalaluddin and Mushtaq Chowdhury, the University Press Limited, 1997.

<sup>50</sup> A Question of Quality, Campaign for Popular Education, 2001.

<sup>51</sup> UNICEF, Progotir Pathay, 1997.

<sup>52</sup> Ibid.

In April 2002, based on the success of its pilot school feeding program in the floodplain region, WFP planned to expand its Bangladesh school feeding program to include some 600,000 children attending 7,000 government and non-governmental schools nationwide.<sup>53</sup> It will be one of the largest WFP school feeding programs in the world.

Within this social and economic context, LOL proposed to target districts in which the problems of malnutrition and primary school enrollment and attendance are among the most severe in the country. Jamalpur and Sherpur were chosen because they are two of the three most needy districts. LOL also took into consideration accessibility by transport for food shipments.

### **Commodity Management**

In fiscal year 2002, the U.S. Department of Agriculture (USDA) donated nearly 35,000 metric tons of agricultural commodities to LOL under the GFE program. The commodities included hard red winter wheat, 30,000 tons; non-fat dry milk, 950 tons; and soybean oil, 4,000 tons.

LOL monetized most of the wheat and part of the non-fat dry milk and refined soybean oil. Proceeds from the sale of the commodities to Bangladeshi buyers provided funds to implement the GFE school feeding program. Most of the remainder of the wheat (2,500 tons) was bartered, and U.S. wheat was also included in the wheat blend for the fortified biscuits.

Commodities were made available by USDA in January 2002, shipped in February/March, and arrived in Dhaka in April 2002. Commodity sales were negotiated in February and the first funds were received in May 2002. LOL advanced its own funds to the project beginning in November 2001 so that work could begin immediately after the agreement was announced in December 2001.

While the commodity sales proceeded within the expected timeframe, the revenues were significantly less than expected. The commodity sales provided about \$6.5 million for the first year of the GFE project, which was approximately 70 percent of the amount originally projected in the LOL/USDA agreement. Sales revenues were reduced by falling prices, particularly for non-fat dry milk, and by high Bangladeshi tariffs and duties on refined soybean oil. LOL has modified its project to accommodate this revenue shortfall.

The LOL project staff was determined to begin the Bangladesh school feeding program as soon as possible so the children would have the benefit of the snacks. The staff needed to act quickly, but at the same time develop long-term strategies to ensure a sustainable milk supply for the schools. Milk supply contracts were signed with processors in February and

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<sup>53</sup> World Food Program, *New Directions in Bangladesh*, January 2002.

March, and arrangements were made to import processed milk until Bangladeshi processors developed the capacity to supply the project. The fortified biscuit supply was contracted in March, including the requirement to use U.S. wheat when that wheat was available in Bangladesh. A barter agreement was made in late April to exchange USDA-donated milk powder for ultra-high temperature (UHT) milk. Distribution of UHT milk in 200-milliliter packs and fortified wheat biscuits began in the project area in mid-April 2002, four and a one-half months after the start of the work and prior to the arrival of the commodities in Bangladesh.

### **Project Overview**

**Goals and objectives:** The goals of the LOL GFE project are to increase overall enrollment and attendance by 20 percent, increase girls' attendance by 15 percent, improve child nutrition by 10 percent, and improve dairy and food processing operations in the country. Through the implementation of its school feeding program, LOL had planned to feed 350,000 primary school students a daily snack of UHT milk and fortified biscuits for one full school year. Because monetization proceeds were less than expected and costs higher than expected, LOL now plans to feed around 200,000 children.

The GFE program has the full cooperation of the Primary and Mass Education Division of the Education Ministry. In addition, LOL is working to integrate the program with other related development programs through collaboration with additional donor agencies to ensure maximum impact and avoid redundancies.

**Implementation status:** The selection of target areas for school snack distribution was based on low school enrollment, low girls' attendance, poor nutrition levels, good access for food commodity transportation, and sufficient numbers of primary school students to reach the original goal of 350,000 children in one administrative area. The GFE staff wanted to include all primary schools (government and non-government) in the area. By providing snacks to schools in the district, students would not switch from one primary school to another to take advantage of the meals. Similarly, the area would need to be large enough so that measured increases in enrollment and attendance would reflect real increases throughout the area and not simply students coming into the area from outside. The establishment of specific need-based criteria also reduced political pressure on the Government of Bangladesh and the GFE program staff to include non-targeted schools.

The project management plan called for gradual expansion to cover all schools in the target district while simultaneously establishing distribution management and monitoring systems. Inventory control with receipt and distribution management systems is to be developed around a project area warehouse. Schools report on receipt of snacks and consumption by the children. A local private group delivers the supplies to the schools and ensures that receipts and reports are returned to the district control center.

<b>Bangladesh School Feeding Program</b>		
<b>Criteria</b>	<b>Status of Achievement</b>	<b>Comments</b>
350,000 children to receive milk and biscuits daily.	School meal distribution began on April 15, 2002, four and a half months after the start of the program and prior to the arrival of the commodities in Bangladesh. 34,000 children were receiving milk and biscuits as of May 16, 2002. Distribution will expand to cover 90,000 children in June, 120,000 in July, and 200,000 in September.	Children's school feeding is expanded gradually as distribution and control systems expand to enable program management and monitoring of school feeding. Lower than expected (by \$2 million) proceeds from monetization, increased costs, and an expanded number of feeding days required LOL to reduce the total feeding goal to 200,000 children.
20% increase in enrollment and attendance.	30% attendance increase was recorded in the first five weeks of distribution, based on the schools' demand for snacks; 3% enrollment increase was recorded in school reports.	Enrollment period is January to March. After that period, no official enrollment is permitted, but some children are added to the rolls. The major increase in enrollment is expected in January 2003.
15% increase in number of girls attending school.	Girls' attendance increased 30% based on school records and the surge in demand for milk and biscuits for delivery to schools.	Girls' attendance increased along with boys' attendance. However, the girl-boy ratio was already equal, so there is no increase in girls as a percentage of total students.
10% increase in weight/height ratio per child.	Baseline survey measures of weight and recordings of age were made in February-March on a sample of schools. Data showed 27% malnutrition for boys and 20% for girls.	Weight for age will be used as the nutrition indicator in place of weight for height. Baseline data will be compared with weights after six months of program work and then after one year. The same children weighed in the March baseline will be weighed in November after six months of school feeding.
50% adoption rate of new concepts in dairy and food processing introduced at training sessions	No training sessions were held from December to May.	Training and technical assistance will be initiated in July/August 2002. Public information campaigns to encourage private entrepreneurs began in May.
Barter of wheat.	All wheat for monetization was in one bulk shipment, so partial barter was not possible. Milk powder (NDFM) used in production and bartered for UHT milk in 200 ml packs supplied for the project.	Biscuit manufacturer certified that flour from U.S.-origin wheat is being purchased and used in all biscuits produced for the project after arrival of shipment.

The strategy for biscuit supply was based on providing for the unmet nutritional needs of Bangladeshi primary school children. The current food intake and nutritional requirements of 7- to 9-year-old rural children were analyzed, and the gap between the nutritional need and current intake was identified as the target for the combined milk and biscuit snack. The fortified biscuits are meant to provide the nutrients not provided by the milk; therefore, biscuit companies were asked to produce biscuits to meet the children's kilocalorie (Kcal) requirements. LOL also identified suppliers of a vitamin-mineral pre-mix and negotiated for a nutrient mix that could be added to the biscuits to meet the children's need.

A national non-governmental organization (NGO) was contracted at the local district level to distribute food snacks to the schools and to assist in monitoring. A computerized information system was developed to provide distribution management and monitoring, inventory control, and school attendance, enrollment, and consumption data, and to produce all required GFE reports. Distribution of UHT milk in 200-milliliter packs and fortified wheat biscuits began in the project area in mid-April 2002.

The original goal of feeding 350,000 children a day for a school year could not be realized for several reasons. There was a \$2-million shortfall in revenue from commodity sales, and the price per serving of milk was higher than calculated in the proposal. In addition, a miscalculation in the number of days children attend school (six days/week rather than five days/week) caused the number of daily rations to increase. Lastly, due to the extremely poor nutritional status of the children, LOL decided to serve the fortified biscuits for the entire duration of the project rather than for 16 weeks as envisioned in the original proposal. As a result, the total number of student beneficiaries is now estimated at 200,000.

**Other donor support:** The Asian Development Bank (ADB) invited LOL to meet with its project preparation technical assistance team to discuss how the Bangladesh GFE school feeding program can work together with proposed ADB investments in educational quality in the Second Primary Education Development Project.

The Food and Agriculture Organization of the United Nations (FAO) requested staff from the Bangladesh GFE school feeding program to visit FAO's program to discuss how the two groups can work together to expand dairy development. The FAO program focuses on the development of small and medium farmers and the role of the dairy industry in improving the quality of lives of dairy farmers. FAO would like to see if LOL and the GFE Program can find common interests in dairy development programs.

The Agro-based Industries Technology Development Project (ATDP), supported by the U.S. Agency for International Development (USAID), is led by the Louis Berger Group and includes LOL as a sub-contractor. The project provides technical assistance to agribusiness clients, and the ATDP staff expressed interest in milk processing and biscuit manufacturing. ATDP staff wants to work more closely with GFE staff to identify milk processing and biscuit manufacturing entrepreneurs who can develop successful products. ATDP would provide technical assistance to these agribusiness entrepreneurs to assist them in expanding their business and to develop new business opportunities.

**Sustainability:** LOL and USDA staff understand the need to develop local capacity and relationships with related government and multinational development groups to ensure the sustainability of the GFE program. The program began Dec. 1, 2001, and LOL has preliminary agreements with the Government of Bangladesh to support the GFE. The Minister of Education has informed LOL that the ministry will support a budgetary allocation in the Annual Development Plan to provide government funds to supplement funds available through GFE. The budget development process begins in September, and LOL will meet with education ministry officials to help prepare the budget allocation documents.

The Government of Bangladesh has also announced that it will encourage the development of the dairy and livestock industries and the expansion of agro-processing in the dairy sector. To do this, it will make available credits from the development banks to dairy development and livestock projects.

**Monitoring and evaluation:** Both USDA and LOL are carrying out monitoring and evaluation activities. A local monitor hired by USDA provides the local monitoring for USDA. USDA and LOL have coordinated their monitoring and evaluation efforts to avoid redundancies while insuring independence of action. USDA will use input from its National Agricultural Statistics Service (NASS) to determine the number of schools to be selected. These schools will then be used for the baseline questionnaire and qualitative data collection.

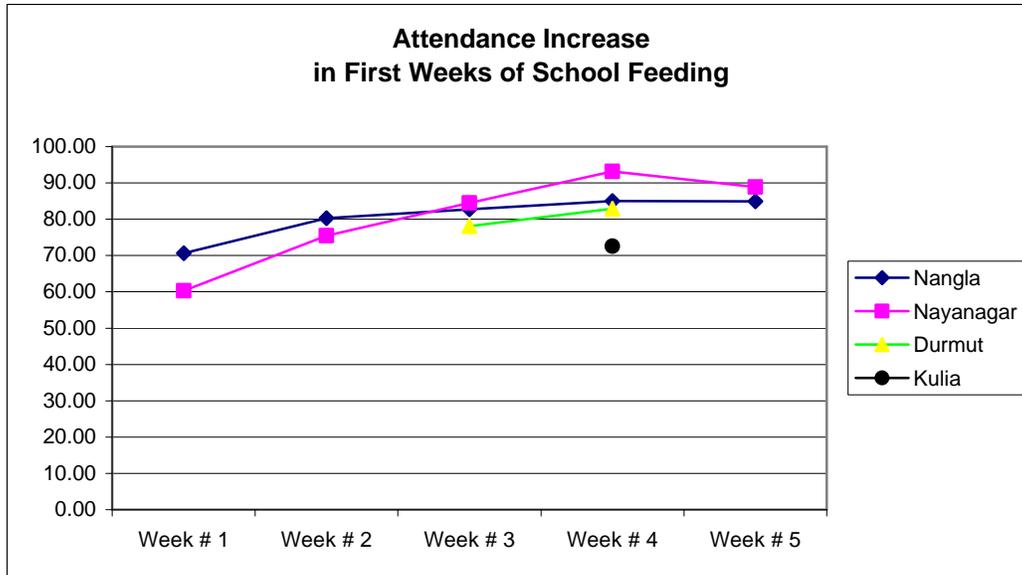
### **Project Impact**

**Enrollment:** Changes will not be seen until January 2003 because school enrollment is open only between January and March of each school year and feeding began in April 2002. However, some names have been added to the roles in spite of the March cutoff, and LOL calculates the enrollment increase in the areas where the school feeding program started to be 3 percent during the first half-month (April 15–May 2).

**Attendance:** Data shows a rapid increase in attendance for schools receiving GFE snacks. During the first program week (April 15-18), only biscuits were distributed because the milk had not arrived. Nonetheless, attendance increased by an average of 22 percent in Nangla and 29 percent in Nayanagar in the first five weeks of the program. The spread of information regarding the school feeding program has already increased attendance in schools throughout the sub-district in anticipation of a school snack; in the areas that started later, attendance had already increased by the time the food arrived.

LOL will compare current attendance records with the original NGO “head count” survey prior to the start of the project to measure changes in attendance in the project areas.

**Performance:** Data on performance is not yet available as the project is in its very early stages.



*\*From Land O'Lakes Monitoring Report*

**Special emphasis on girls:** Girls' attendance now is higher than boys' attendance in all schools. Average attendance is 88.3 percent for girls and 87.1 percent for boys. In the areas where the program first started, the enrollment rate is 90.1 percent for girls and 88.3 percent for boys.

**Other project achievements:** The project is in its second month of feeding. Height/weight ratio per child will be available at a later time in project implementation. Technical assistance to the dairy sector is ongoing but can only be measured over time with input from the commercial sector.

### Unanticipated Outcomes

Prices received for the commodities were lower than the levels projected in the USDA-LOL project agreement. This resulted in a \$2-million shortfall in proceeds from commodity sales.

The UHT milk cartons generate a tremendous amount of trash every day that must be disposed of properly. LOL has worked hard to find a feasible solution to the disposal of empty milk cartons. Temporarily, the cartons are burned at a local rice mill and used for fuel to parboil unhusked rice. The GFE is working with the Small Industry Research Council to explore other uses for the cartons.

At the same time, LOL is working with an educational specialist to redesign the milk cartons as learning-teaching tools. Ideas include making the cartons into educational tools by printing Bangal numbers or letters from the alphabet on the sides. During each printing run, a different number or letter would be printed on the carton, eventually enabling the children to have complete sets of the alphabet and the numbers 1-10.

Another idea is to print metric measures along one side of the carton. LOL continues to place a priority on minimizing any environmental impact.

LOL expected that dairy production would increase as a result of the GFE project. However, the positive impact on women farmers from the increased demand for milk was not anticipated. Women have primary responsibility for family dairy operations. As countless studies have shown, increased economic benefits to women directly affect the health and well being of their children.

## **Lessons Learned**

The program has been operating for six months, and distribution in the schools has been ongoing for six weeks at the time of this report. While it is early in the project to draw firm conclusions about implementation issues and potential problems, the following observations can be made:

- The calculation of expected prices for monetization will need to be adjusted to reflect market trends and the specific conditions prevailing in Bangladeshi commodities markets.
- Attendance can be significantly increased in rural primary schools if snacks are given to children.
- Distribution, management, and monitoring systems are critical and can be developed to control delivery, receipt, and use of school feeding commodities. These systems can be linked with school-based records of enrollment, attendance, and consumption of donated meals to meet USDA reporting requirements.
- Educational quality is a major problem faced by the project in Bangladesh. There is some concern that the increase in attendance and enrollment produced by the school feeding program may reduce the quality of education. LOL will be using funds available under the project to improve the quality of education provided in the primary schools and will work with other donors to improve learning and educational achievements.
- Teachers are not available in sufficient numbers to teach the increasing numbers of school children. Most schools in the project area have only three teachers for six classes. With an average 53 children per teacher, overcrowding was a problem even prior to the start of the GFE school feeding program. The increased attendance is expanding the size of the classes and may be reducing the already limited effectiveness of the teachers.
- Teaching materials are not available in most classrooms and those that are available do not seem to be very effective. Children lack writing and exercise books, pencils, and other educational support materials.

## **Next Steps**

A number of steps have been identified that need to be taken to continue the effectiveness of this program. These steps build on what has been accomplished so far and will serve to improve and extend the program:

- Continue as rapidly as possible the expansion of school feeding to reach 200,000 children with a school snack of milk and fortified biscuits.
- Refine and improve the computerized inventory control and distribution management systems. Expansion of the program will require ensuring that reports meet program management needs. Special attention should be paid to school level inventory, attendance, and consumption reporting.
- Improve monetization procedures and competition for U.S. commodities to increase prices realized from commodity sales. Improve information available to Bangladesh commercial groups about monetization procedures and commodities. This will include work to improve access to individual buyers, to break cartel and syndicate purchasing, and to bypass brokers in order to improve competition and increase the prices that can be realized from the commodity sales.
- Reduce costs for biscuits and milk supplied to the program to enable the project to reach more children with available funds.

In addition to these policy and program issues, there are a number of specific actions that are needed to continue and expand the effectiveness of the program. These actions are currently part of the plans of the GFE Bangladesh school feeding program and will be initiated during June to September 2002.

- De-worming will be conducted for all school children in the program. A contract has been developed for a national NGO to purchase de-worming medicine and deliver it to each school under the GFE feeding program. A continuing contract will be established to ensure that as schools are added to the feeding program, all children will be de-wormed twice each year.
- Educational testing will be undertaken for the same sample of children surveyed in the project baseline study. An NGO with experience in testing the “Achievement of Basic Competencies (ABC’s)” will undertake the survey that will focus on simple tests of math, science, and literacy. Tests will be conducted on children in grades three and five and will be repeated after one year of the GFE program.
- Educational quality improvements will be implemented in a sample of schools. Advertisements have been placed for recruitment of “teacher’s aides” who will be employed under contract to serve at government schools. Education Department officials have agreed to cooperate with LOL in this experiment to improve the quality of the education in the primary schools.
- An effort will be made to increase the caloric content of the biscuits through improved formulation. Experiments will be undertaken to determine if the quantity of biscuits can be increased; i.e., if 7- to 9-year-old children can eat more than 40 grams of biscuit along with 200 milliliters of milk. LOL will also investigate possible calcium fortification of the milk.

## **GFE in Action**

*A boy struggles on one meal a day.* Zaidul, 11, has come to school again without any food. There are days when he feels so weak he can barely make it to the school compound. He and his family have only one meal a day. He does not play after 3 p.m. in case he gets hungry, so he sits and watches the other boys play. The school milk and biscuits are helping him to survive. "I am so happy to come to school now. I get to eat milk and cookies. I hope they never stop giving us milk and cookies," he says.

*Drink milk, be smart.* Many of the children in the program are new to the school. The novelty and excitement of food being distributed free is enough for mothers to bring these children to the school. When the benches are full, newly arrived children sit on the floor, eager to receive their milk and cookies. The boys from Class 3 have volunteered to distribute the milk and biscuits. The older kids help the young ones open their packets of biscuits and stick the "pipe" (straw) into the milk cartons. The mothers stay until the meal is finished. They smile and talk about this new event at school. They all agree this is good for their children's education and their family. From inside the classroom, the children are heard to chant in chorus, "Dudh khao, budhi barao!" (Drink milk, be smart!)

*Mothers pitch in to ensure the program continues.* Husne Ara wants a better life for her 8-year-old daughter Anita. Husne moved back to her parents' house after her husband's death seven years ago, but she has made herself useful. She helps her mother around the house and taught herself sewing. Today, she earns about 1,000 taka a month sewing sari blouses for the women in the village. She sends her daughter, Anita, to a school everyday and she wants her to finish primary school and then high school. Husne Ara is prepared to work very hard to give her daughter an education. She has organized a group of mothers to contribute 15 taka each to build a cupboard where the GFE milk and biscuits can be safely stored. She feels that the mothers should do what they can to help ensure that the program continues.

*A frustrated but dedicated teacher worries about hunger and nutrition.* Dilruba worries about her students. The teachers and headmaster have their hands full, with 235 children to accommodate. Her students are thin, malnourished, and often sick. What can one expect from a diet of rice? The first day the milk and cookies were introduced, there was such a stampede she thought the little school building would fall down. Now the children understand the snacks will come daily, and they sit in their benches and eagerly wait. At the next meeting with parents, Dilruba will make sure parents understand that the school meals are only a supplement. She will suggest practical ways for parents to offer healthier meals at home and to save something from the evening meal so the children can have a bite to eat in the morning before they go to school.

# **Bhutan**

## **World Food Program**

### **Summary of Findings**

School meals or additional provisions for lengthy travel to school or to compensate households for the loss of a child's labor can relieve a burden for parents, making it possible for children from remote, food-insecure households to attend school. Approximately 27,400 boarding students at primary schools, lower secondary schools, and middle secondary schools are receiving two meals a day for 295 days of the year under this World Food Program (WFP) project. An average 13,900 day students at targeted remote primary and community schools are receiving two meals a day for 230 days per year. An average 1,800 day students at lower secondary schools are receiving one meal per day for 230 days a year.

Bhutan is well on its way to establishing a sustainable national school feeding program for all Bhutanese children. The Government of Bhutan has invested, on average, 60 percent of recurrent educational expenditures for primary education. Enrollment of both girls and boys has steadily increased over the last three years and attendance rates, even during the lowest periods, are at least 86 percent. The number of certified teachers is also on the rise, enabling the country to retain acceptable teacher/student ratios.

### **Country Overview**

Bhutan is a mountainous, low-income, food-deficit country with a population of about 658,000. About 30 percent of the population is estimated to be vulnerable to food insecurity throughout the year, with a higher percentage seasonally.

Nearly 80 percent of the population lives in rural areas and is dependent on subsistence farming. The difficult mountain terrain, limited communications, and highly scattered settlements impede access to schools. The education-sector strategy notes that the biggest challenge to providing universal basic education in Bhutan lies in enrolling and retaining children from poor and food-insecure families living in remote communities.

While there is no major gender difference in enrollment at the primary level, a gender gap appears in enrollment at the middle secondary school level. At present, girls represent 46 percent of both primary and lower secondary school children, but just 43 percent of middle secondary school children.

## **Project Overview**

The U.S. Department of Agriculture (USDA) provided commodities to WFP's school feeding program titled "Improving Rural Children's Access to School." The school feeding program is part of a larger effort to enable poor households to invest in human capital through education and training. Children from remote, food-insecure households are able to attend school because the burden on the parents to provide food for school meals or additional provisions for lengthy travel to school is removed. Households are compensated for the loss of school children's productive labor.

## **Commodity Management**

Food aid in the Bhutan school feeding program will:

- Enable poor, food-insecure families to enroll their children in schools and encourage regular attendance by reducing the cost of education to their families.
- Provide a nutritional supplement for students in WFP-assisted schools to augment the local diet, which is low in protein and micronutrients.
- Alleviate short-term hunger and help meet classroom energy requirements with commodities in the following amounts:

<b>Commodity</b>	<b>Metric Tons</b>	<b>Arrival</b>
Corn-soy blend	10	December 2001
	370	January 2002
Rice	420	December 2001
Vegetable oil	50	January 2002
Wheat	900	January 2002

**Goals and objectives:** The goal of this activity is to increase the percentage of poor, food-insecure people in remote areas who receive 10 years of basic education. By reducing the cost of education to poor, food-insecure families, WFP assistance will help them to access basic education for all of their children, thereby reducing the educational gender gap. The education they gain will be a personal asset that will help to reduce poverty.

The objectives are:

- To help increase enrollment and reduce the dropout rate of students up to tenth grade in all rural boarding schools.
- To help increase enrollment and improve regular attendance by day students, especially girls, from remote areas in less accessible schools.
- To improve children's attention at school by increasing their food intake. WFP is confident of achieving this objective based upon substantial experience and research of school feeding projects.

**Implementation status:** The students in community, primary, lower secondary, and higher secondary boarding schools receive two meals per day from WFP. The parents contribute the third meal in the community and primary schools. In the lower secondary and higher secondary boarding schools, a stipend from the Government of Bhutan covers the third meal. The targeted day students in community and primary schools receive breakfast and mid-day meals from WFP. Lower secondary day students receive one mid-day meal per day.

At the school level, the head teacher is in charge of school feeding, including the receipt and distribution of commodities and reporting. The Bhutan Department of Education finances the construction of kitchens and storerooms; provides furniture, cooking utensils, and stoves; pays the salaries of cooks; and covers the costs of cooking fuel.

**Other donor support:** The Government of Bhutan plans major investments, including the construction of more than 100 community primary schools, 26 lower secondary, and 23 middle secondary schools. Teacher training will be expanded with Asian Development Bank assistance. Principal donors will be Denmark, Switzerland, and the United Nations Children's Fund. International Development Association loans from the World Bank will supplement resources needed for infrastructure development.

### **Project Impact**

The activity intends to have the following outcomes:

- An increase in the national percentage of school-aged children enrolled in classes up to grade ten.
- An increase in the attendance of children enrolled in the participating schools.
- A reduction in the dropout rate for each grade up to grade ten.
- Closing of the national gender gap in school enrollment.

The activity intends to have the following outputs:

- An average of 27,400 boarding students at primary schools, lower secondary schools, and middle secondary schools receiving two meals per day during 295 days a year for five years.
- An average of 13,900 day students at selected remote primary and community schools receiving two meals per day during 230 days a year for five years.
- An average of 1,800 day students at lower secondary schools receiving one meal per day during 230 days a year for five years.
- At least 49 percent of the above students will be girls.

To date, the WFP Bhutan school feeding program has demonstrated the successful partnership between a committed government and a United Nations-assisted development project. Since 1998, enrollment levels have increased, and attendance rates now average over 90 percent. Parents are more involved in the schools and encourage greater attendance from their children.

# **Cambodia**

## **World Food Program**

### **Summary of Findings**

In Takeo Province, the United Nations World Food Program (WFP) provides children with one meal, a breakfast, per day. Access to basic education, retention, and achievement are increased for both girls and boys. The initiative in Cambodia is designed to relieve short-term hunger among school children, particularly those living in remote rural areas where they have to walk long distances to schools. Overall enrollment is up 8 percent in the schools where a feeding program has existed over the last three years. Enrollment increased 9.3 percent for girls and 7.3 percent for boys. In the schools in which the school feeding program is new, overall enrollment increased 5.7 percent, or 6.4 percent for girls and 5.1 percent for boys.

### **Country Overview**

Cambodia is emerging from 30 years of warfare and mass displacement. Much of the population of 12 million remains vulnerable to economic threats posed by unequal access to basic goods and services, education, employment, income opportunities and, in many areas, food. The low purchasing power and remoteness of the majority of the population, who live in rural areas, exacerbate food insecurity. The border areas, in particular, remain fragile as previous rebel strongholds are brought into the mainstream of Cambodia's political system and economy.

Annual per capita income is about \$268. More than 40 percent of the rural population lives below the poverty line. Cambodia still counts among the most heavily land-mined countries in the world.

Access to formal and non-formal education is limited, particularly in rural areas, with girls and women most affected. The literacy rate at 15 years of age and over is estimated at 68.7 percent, or 58 percent for women and 81.8 percent for men. Primary education is marked by high repetition and dropout rates, with over 40-percent repetition of grade one for both boys and girls. Less than 40 percent of girls complete primary education.

### **Commodity Management**

The U.S. Department of Agriculture (USDA) provided 1,660 metric tons of rice and vegetable oil in support of the WFP Cambodia school feeding activity. The agreement between USDA and WFP was signed March 2001.

<b>Commodity</b>	<b>Metric Tons</b>	<b>Arrival</b>
Rice	350	August 2001
	707	August 2001
	443	August 2001
Vegetable oil	130	July 2001
	30	July 2001

### **Project Overview**

In Takeo Province, WFP has joined the World Bank-supported Education Quality Improvement Project (EQIP) of the Ministry of Education, Youth, and Sports (MOEYS) in a school feeding initiative supporting 64 primary schools in the province. By providing children with one meal per day (breakfast), girls' and boys' access to basic education is increased, together with retention and achievement. The initiative is designed to relieve short-term hunger among school children, particularly those living in remote rural areas where they have to walk long distances to schools. It also encourages female students to enroll and stay in school in grades four and five, when attendance typically falls and the dropout rate begins to increase sharply.

The costs of providing the meals, apart from WFP provision of rations, are borne by the community. The mid-term evaluation of the protracted relief and recovery operation and the subsequent WFP-UNESCO appraisal mission recommended that this initiative be continued in cluster schools where additional inputs from EQIP/MOEYS or other primary education, health, and community support programs are available. This would then bolster the government's community-based reconstruction of the basic education system. It is anticipated that these programs will guide future development of national "Education for All" strategies, as pledged by the government.

### **Project Impact**

Overall enrollment increased 8 percent in schools with an existing feeding program over the last three years, with enrollment up 9.3 percent for girls and 7.3 percent for boys. In the schools in which the school feeding program is in its first year, overall enrollment increased 5.7 percent, with a 6.4-percent increase for girls and a 5.1-percent increase for boys compared with three years ago. The main reason for non-enrollment and absenteeism for girls and boys is household economy commitments—the lack of family resources and the need for the children's labor at home or at income-producing tasks.

## Kyrgyzstan Mercy Corps

### Summary of Findings

The direct distribution component of this Mercy Corps' (MC) project targets about 60,000 children in 535 kindergartens, boarding schools, and orphanages throughout the country. Commodity distribution began in April 2002. Through the program's small grant component, 48 schools will benefit from infrastructure repair, 20 schools will receive food security grants, 10 schools will improve their water sanitation infrastructure, and 145,000 children will be provided with equipment and supplies. An important outcome of the project will be the strengthening of existing and the development of new community and other civil society organizations. The program will continue through September 2003.

#### *Thanking American Farmers*

"When I see *aksakals* (old men respected in the village) and grandmothers come to our meetings to discuss educational problems, I feel so proud of them and optimistic about our future. Actually, when we present the program and explain that American farmers donate the food, a lot of people are saying their great thanks to the American farmers." –MC Monitoring Report

### Country Overview

Known for its natural beauty, Kyrgyzstan (or the Kyrgyz Republic) is a small, landlocked country in Central Asia with a population of just under 5 million. It is bordered by China, Kazakhstan, Tajikistan, and Uzbekistan. The Tien Shen mountain range dominates the landscape, with almost 90 percent of the country covered by mountains. There are two distinct demographic, cultural, and economic centers in the country – the Chui Valley in the north and the Ferghana Valley in the south. It is a poor country with a predominantly agricultural economy.

Kyrgyzstan gained independence from the Soviet Union in 1991. The country was not prepared for independence, and the social, political, and economic transition has not been easy. The living standard for most people declined due to economic restructuring, which among many changes included a reduction in assistance to children, women, and pensioners. As the standard of living declined, so did the government's ability to pay for social programs. Foreign assistance has played a significant role in supporting economic restructuring.

Kyrgyzstan has made significant strides in moving to a market-driven economy. However, the country continues to face significant challenges involving economic transition, political reforms, and underdevelopment.<sup>54</sup>

In 1998, the Government of Kyrgyzstan amended its constitution to allow for private ownership of land. An estimated 90 percent of farms are now privately owned, and these farms have shown significant increases in productivity.<sup>55</sup> Privatization of state-owned businesses has also proceeded quickly, with 97 percent of businesses owned privately.<sup>56</sup> According to the United Nations Children's Fund (UNICEF), 80 percent of the population lives below the poverty line, giving it the highest poverty level of any former state of the Soviet Union.<sup>57</sup>

Primary school enrollment and attendance is reported to be 100 percent.<sup>58</sup> Literacy is high, with 97 percent of the population over the age of 15 able to read and write.<sup>59</sup> Primary and secondary education is funded locally, while the national government supports higher education. Since independence, finances have not been available to support basic education. Teachers are frequently not paid, and the infrastructure has fallen in disrepair. Communities understand that there will be limited assistance from government to support education and that they must take the lead if they want their children's educational environment to improve.

As UNICEF has found, "though literacy levels and primary school enrollment remain high, the educational system, once provided free of charge to all, is now highly decentralized and fragmented. User fees have been introduced, leading to lower enrollment and higher dropout rates among poorer children. In the mountainous and rural regions, a growing number of children cannot attend school because basic maintenance of school buildings has stopped. The highest decline in enrollment is at the kindergarten level. In 1990, around 30 percent of young children were enrolled in preschool. In 2000, that fell to 5 percent. The public preschool system collapsed with the breakup of the Soviet Union. The number of private kindergartens has grown, mainly in the urban areas, but access for rural children is almost nil. This situation demonstrates the critical importance of MC's efforts."<sup>60</sup>

Within this social and economic context, MC targeted a direct feeding program to institutions that provide education to young children, children orphanages, and boarding schools. A small grant program focused on educational infrastructure upgrades to the most disadvantaged geographic areas. On Aug. 3, 2001, MC and the U.S. Department of Agriculture signed an agreement that authorized MC's Global Food for Education (GFE) program in Kyrgyzstan. USDA allocated 7,790 metric tons of commodities to MC for the project.

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<sup>54</sup> The United Nations in Kyrgyzstan, Country Information Profile. Bishkek, Kyrgyzstan, 2001.

<sup>55</sup> Kyrgyzstan Development Gateway, 2001.

<sup>56</sup> USAID, Kyrgyzstan Country Profile, 2000.

<sup>57</sup> UNICEF, Kyrgyzstan, Country Profile.

<sup>58</sup> Ibid.

<sup>59</sup> Ibid.

<sup>60</sup> UNICEF Priorities, <http://www.unicef.org/programme/highlights/ce/kyrgyzstan/situation.htm>

## **Commodity Management**

MC will directly distribute and monetize commodities. Direct distribution of 1,880 tons of rice, vegetable oil, and wheat flour to kindergarten schools, boarding schools, and orphanages started in April 2002. Proceeds from the sale of 5,910 tons of commodities is being used to implement the project's multiple components to increase enrollment, attendance, and performance, and to enhance the learning environment.<sup>61</sup> MC used its own funds to cover expenses incurred while receiving, distributing, and preparing commodity sales in anticipation of sales proceeds. The following table shows the commodities, quantities, and intended uses.

<b>Commodity</b>	<b>Metric Tons</b>	<b>Use</b>
Rice	540	Distribution
Vegetable oil	270	Distribution
Vegetable oil	530	Monetization
Wheat flour	1,070	Distribution
Wheat flour	5,380	Monetization

Under the terms of the agreement, all distribution commodities, the vegetable oil for monetization, and 50 percent of the wheat flour were to arrive in Kyrgyzstan by October 2001. The first shipment arrived in January 2002. The delay in commodity arrival seriously affected project implementation, as MC had planned to deliver commodities before the winter months when food is at its most expensive. Commodity distribution in late spring or summer poses a problem for boarding schools that close for the summer. Kindergartens and orphanages operate year-round. MC and beneficiary institutions are investigating how to safely store the commodities over the summer, such as processing the wheat flour into macaroni that then can be stored longer.

Schools receive enough commodities in bulk to provide each student a "ration basket" consisting of 9.3 kilograms of rice, 3.2 kilograms of vegetable oil, and 18.8 kilograms of wheat flour. The quantity of food in the ration basket is the same regardless of student age. Distribution quantities are based on the total amount of commodities divided by the total number of children, rather than on caloric content. MC monitors the use of the commodities but does not monitor, at this time, the caloric or nutritional value of the prepared meals. How long the commodities last depend on individual school use.

Kindergartens have been part of previous direct food distribution projects and are enthusiastically awaiting the commodities. The commodities were appropriate for Kyrgyzstan. However, it would be more effective if the vegetable oil for distribution were to be packaged the same as the vegetable oil for monetization; i.e., in six-by-four liter cases rather than 20-liter tins. MC is researching the appropriateness and need for other commodities, such as nonfat dry milk.

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<sup>61</sup> Ibid.

## **Project Overview**

The MC/GFE effort has two components: direct distribution and a small grant program. The direct distribution component targets the most vulnerable populations in Kyrgyzstan, or approximately 60,000 children in the country's 535 kindergartens, boarding schools, and orphanages. The small grant program awards approximately 100 grants to improve educational institutions in selected regions. MC collaborated with the Kyrgyz Ministry of Education to target the regions most in need of this type of support. The following table presents MC's goals and objectives for the program, implementation status, and general comments.

<b>Kyrgyz MC/GFE School Feeding Program</b>		
<b>Progress Criteria</b>	<b>Status of Achievement</b>	<b>Comments</b>
Distribute commodities to 535 institutions—every kindergarten, boarding school, and orphanage in the country for a total of 60,000 children.	Commodity distribution (rice, vegetable oil, and flour) began in April 2002.	Beneficiary children include displaced children and children of nomads. MC will standardize caloric and nutritional value of meals.
Monetize 5,380 tons of wheat flour and 530 tons of vegetable oil.	In process.	Commodities were nutritionally and culturally appropriate for Kyrgyzstan.
Purchase local commodities at harvest and provide to the neediest kindergartens, boarding schools, and orphanages.	Not yet initiated.	Provide supplemental food that can be stored during winter months. First priority will be given to institutions in remote locations.
Provide infrastructure repair grants to benefit some 48 schools	Review process began in May 2002.	More children will be able to attend school longer.
Provide food security grants to benefit some 20 schools.	Review process began in May 2002.	Schools will develop viable business plans to utilize existing resources for income generation. Ten schools will produce food for their own consumption.
Provide for improved water sanitation infrastructure to benefit some 10 schools	Review process began in May 2002.	MC requires grantees to include a health/hygiene component and to develop linkages with UNICEF.
Provide for new equipment and supplies to benefit some 145, 000 children.	Review process began in May 2002.	Equipment will include laboratory equipment, desks, chalk, and books.

The Ministry of Education envisions a key role for kindergartens in providing valuable preschool education opportunities, but resources are not yet available to support these recommendations. As the economic situation in rural Kyrgyzstan worsens, the role of kindergartens in providing at least one healthy, nutritious meal per day for young children will increase in importance.

Boarding schools and orphanages also receive commodities through the MC/GFE project. Boarding schools receive financial support from the ministry but are also heavily supported by parents. Boarding schools provide education to a wide range of students. Several schools are magnets, offering specialization in one subject area such as math, science, or art, while others provide education to refugees, displaced persons, and children of nomads. Orphanages, supported by the government, provide limited educational opportunities and simply do not have the financial resources to provide nutritious meals to the students.

The small grants program requires community and school collaboration in all aspects of the project. The participants need to identify issues that limit educational opportunities for their children. Participants then develop a proposal to address the problems and implement the project jointly. Previously, the head of the school unilaterally made decisions impacting all aspects of education. Parent committees are active in some schools, and the goal of the ministry is to involve parents in all school education programs. MC's requirement that the school and community develop a partnership to access the small grant funds is a crucial first step to broaden community involvement in education planning specifically, and community problem-solving in general.

Over 300 community meetings had been conducted as of May 1, 2002, and that number is expected to double. Regardless of whether a school-community partnership decides to submit a proposal, the process of working together to solve common problems is a valuable development experience. According to the MC monitoring report, the communities want to make things happen, but do not know how to make them happen.

The grant committee composed of representatives from MC, other non-governmental organizations, and the Ministry of Education first met in mid-May to review proposals. Selection criteria have been established. As of June 25, 2002, more than 150 proposals had been received, and 18 projects had been approved. The committee will make additional awards in coming months.

Among the projects that received funding are the following:

- As a result of one infrastructure repair project, 713 children will have a warm and safe environment to study, the need for children to walk to and from school in the dark will be reduced, and additional classroom space will become available for children from neighboring villages. The existing village school is overcrowded and accommodates two and one-half shifts per day. Many students finish classes late in the afternoon and must travel home in the dark. The school bus is broken, and children from remote villages have to walk long distances. As a result of MC's

development intervention, a community group including village residents, teachers, members of the local women's group, and village elders submitted a proposal for consideration under the small grants program. The school-community partnership requested assistance to repair the school's roof, install a heating system, repair the kitchen, install glass windows, and repair the floors. Village residents will do most of the work.

- A safe and warm school setting for 600 students and 45 teachers will be created as a result of this project. The school has had no structural repairs since it was built in 1971. The roof leaks, floors are rotten, the drainage system does not work, and some rooms do not have heat. The school-community proposal requested assistance to repair the roof and floors, install a heating system in the library, add a gymnasium and workshop, repair the drainage pipe, and install new toilets.
- Attendance will increase for the 310 students because they will no longer have to study in damp, cold rooms. The school roof has leaked for two years. Classroom walls are covered with moss, and the floor has been ruined by excessive moisture. The community-school group has requested assistance to repair the roof and floors and to implement a general building rehab.
- Children and out-of-school youths in Boz-Beshik, a poor, remote village, will have computers. The school has an enrollment of approximately 280 students. The school's computers are outdated and in disrepair. The school has a well-equipped technology room, but students are only able to study computer theory. As a result of not learning actual computer skills, students have difficulty meeting university entrance requirements, do not consider their education relevant, and miss class, drop out, or transfer to other schools where they can get appropriate training. The community also wants to organize computer classes for the disabled village youth and the unemployed during the evening and summer vacation.

**Other donor support:** MC/GFE plans to work with UNICEF to implement water sanitation grants. As the project progresses, MC will identify linkages to other donor organizations.

**Sustainability:** Parents and other community residents will be the primary forces sustaining this project. MC's program is very effective in community capacity building. Development of school-community partnerships is a crucial first step to broader community involvement in education planning and community problem solving. This community development component also supports the Ministry of Education's goal to have parent committees become more involved in schools' overall education programs.

The community reconstructed a workshop and built a gymnasium for school children. School children, teachers, parents, and village leaders all participated. Each student brought about 20 brick stones to school that they found around the village. A lot of brick stones were left over, and the community plans to build more classrooms for the school.

**Monitoring and evaluation:** The sample school selection criteria for the direct distribution component were developed at a meeting attended by MC and USDA staff. Significant social, political, and economic differences exist between Kyrgyzstan's north and south. Likewise, there are significant differences between urban and rural communities in access and availability of basic resources, information, and technology. At this time, final numbers of small grants awarded and geographic distribution are unavailable.

### **Project Impact**

It is too early in the implementation cycle to report on project impact, although indicators so far have been positive.

In a village near Kara Kol, many children from 10 to 12 years old and up are hired to work in the fields and are absent from school. When MC staff asked why they were not in school, the children responded that they needed to earn money to buy clothes suitable for school.

### **Unanticipated Outcomes**

MC/GFE has created new opportunities and enhanced existing opportunities to strengthen societal organizations. The small grants program requires school officials and community members to be trained and participate in a community development process as a criteria on eligibility. Skills learned through this process can be used to tackle other community problems. Community development training will have a far-reaching impact. In spite of travel difficulties, people attended planning meetings.

### **Next Steps**

MC plans to modify the way it works with communities. A memorandum of understanding (MOU) will be prepared outlining the responsibilities of the MC "mobilizers" – the MC staffers who work with the communities – and the frequency of technical assistance visits. Some communities require so much assistance from the MC mobilizer to develop their proposals that they then believe that they are guaranteed grants based on MC's investment of time and resources in providing that assistance.

Community-to-community meetings should be coordinated. This will allow communities to provide support and assistance to each other.

## **GFE in Action**

Attending a community meeting to discuss school problems, an MC mobilizer saw community members ready and willing to take charge, combine meager resources, and work together to improve school conditions. Women offered to arrange meals for workers, men agreed to work without pay, and the Aiyl okmotu village government agreed to provide wood.

In Baltabai village, the school has two hectares of land, and the school community partnership decided to apply for an MC/GFE food security grant. Each child brought two to three kilograms of potatoes to school to plant. The school plans to sell half the potatoes to purchase school equipment. During a visit by an MC mobilizer, a 10-year-old student, obviously feeling very important, delivered some potatoes to the school director, saying, "If this is not enough, let me know and I will bring more."

Ordinary people appear more interested in improving education than in politics. In spring 2002, the Susamir Valley was host to a range of political rallies, speeches, and other activities. With all the efforts to draw crowds to political events, the MC mobilizer was not sure that many community members would show up for the school meeting. Also, a heavy snow was falling, and roads were blocked. Nevertheless, a huge throng made its way to the school not to attend a political meeting but rather to meet the mobilizer and learn about GFE. They discussed education issues and ways to solve their problems. Some community members offered sheep and wheat as their contributions to the school repair budget.

During a site visit to Osh Oblast, a GFE monitor visited a school that was an old shelter for sheep, completely open to the outside with no heating system. The community decided to build a new school itself, but it did not have any government funds. The community collected some money, laid a cement foundation, and made bricks. The walls went up, and the community has asked for help to finish it. Despite a hard life in a remote place, the people worked enthusiastically to provide the children with a new school.

When a monitor visited one of the kindergartens in the south, she observed children coming to kindergarten with packets of food. The director explained that the public kindergartens do not have enough money to feed the children. Parents cannot pay the kindergarten fees, so instead they provide their kids with food to take to school, such as potatoes or noodles.

During his site visit to a village in the south, an MC mobilizer spoke with an old man making bricks. The mobilizer asked the old man if he were building a house. The old man explained that the community is going to build a school, so he is helping them.

# Nepal

## World Food Program

### Summary of Findings

The long-term objective of this World Food Program (WFP) school feeding project is to increase access to basic education for families in food-deficit districts and to improve the health and nutritional status of school children. Under the project, about 250,000 school children in first through eighth grades 1–8 receive daily meals, and the mothers of about 42,000 girls in second through eighth grades receive vegetable oil. Enrollment rates for girls have increased at a greater rate per year than that of boys. This is most likely due in part to take-home rations and the fact that more girls than boys are currently out of the school system.

### Country Overview

Nepal, a low-income, food-deficit country, has an annual per capita gross national product (GNP) of slightly over \$200 (1998) and ranks 144th on the United Nations Development Program (UNDP) Human Development Index (1999). Of its 22 million people, 42 percent live below the poverty line and more than one-third consume fewer than 2,250 kilocalories a day. The maternal mortality rate is one of the highest in the world, at 475 per 100,000 live births. The under-5 mortality rate is 118 per 1,000. Despite women's high labor input to the household economy, their access to assets and services and their involvement in decision-making is restricted by rigid socio-cultural practices.

Nepal's literacy rate is the 11th lowest in the world. There are pronounced regional and gender disparities in school enrollment rates. The net enrollment rate for primary schools is 79.4 percent for boys, but only 61.2 percent for girls. In the far western hills, these rates drop to 77.8 percent for boys and 49.3 percent for girls, and, in Achham district, to as low as 50 percent for boys and 30 percent for girls.

Dropout and repetition rates remain high, with 23 percent dropping out in grade one and 55 percent before the completion of the primary cycle. Only 10 percent of those enrolled in first grade complete primary school without repeating a grade.

The main reason for dropping out is poverty. Girls tend to drop out earlier than boys, primarily because they are required to do most of the household chores. The incidence of short-term hunger often deters children from attending class regularly or concentrating on learning. In the hill districts, about 40 percent of the children walk long distances to school, often on steep mountainous terrain, while those who live near the schools often return home for a meal during the mid-morning break and then fail to return to school.

## **Commodity Management**

The following commodities were provided for this project:

<b>Commodity</b>	<b>Metric Tons</b>	<b>Arrival</b>
Wheat-soy blend	50	August 2001
	150	September 2001
	1,786	January 2002
	464	January 2002
	1,320	January 2002
Vegetable oil	470	January 2002
	470	January 2002
	140	January 2002

## **Project Overview**

**Goals and objectives:** The long-term goal is to increase access to basic education for families in food-deficit districts with high educational needs, and to improve the health and nutritional status of school children. The project objectives are to:

- Improve attendance.
- Increase girls' enrollment and retention.
- Reducing afternoon absenteeism.
- Enhance the attention span and learning capacity of students by relieving short-term hunger.
- Reduce the intensity and prevalence of intestinal parasitic infections in school children by de-worming.
- Increase parental participation in the activity and heighten their awareness of gender issues.

**Implementation status:** The Primary School Nutritious Food Program (PSNFP), under the Secretary of the Ministry of Education (MOE), will remain the management unit responsible for implementing and monitoring Food for Education.

The de-worming program will continue to be implemented with the technical assistance of the World Health Organization (WHO) and through close operational coordination between MOE and the Ministry of Health.

The yearly number of participants is 250,000 school children in grades one through eight who receive a daily school meal, as well as mothers of about 42,000 girls in grades two through eight who receive vegetable oil.

With the exception of vegetable oil, WFP intends to procure all food requirements locally, as this has proved to be more cost-effective than importing in-kind contributions. Moreover, considering the complex logistics in the hill and mountain districts, only local procurement can ensure timely delivery and minimize losses resulting from limited storage capacities in remote districts.

A mid-day meal will be provided to relieve short-term hunger, provide micronutrients to improve the overall health of children, and enable children to attend school regularly. The proposed daily per capita ration is 110 grams of fortified food mix (composed of 85 grams of cereal blend, 15 grams of sugar, and 10 grams of vegetable ghee). This will provide approximately 463 kilocalories, about 15 grams of fat, and 17 grams of protein, plus micronutrients.

In selected districts and communities, a take-home ration consisting of two liters of vegetable oil per month will be provided to the mothers of girls, in order to encourage families to enroll their daughters in school and keep them there. As the vegetable oil is to be delivered directly to the girls' mothers, it will also boost interactions between parents and school staff, thereby serving as a vehicle for community participation in school planning in general and in the management of feeding activities in particular. Both the mid-day meal and the take-home ration will reduce the opportunity costs of basic education for very poor families.

The following outcome indicators have been identified:

- Increase in the proportion of girls to 43 percent of total enrollment by 2006.
- Increase attendance rates for girls and boys to at least 80 percent.
- Control worm infestation in girls and boys, and ensure that at least 80 percent of girls and boys receive de-worming tablets twice a year.
- Provide a school meal on school days to 250,000 children, including 152,300 boys and 97,700 girls (average numbers per annum).

**Other donor support:** The Asian Development Bank, the Danish Agency for Development Assistance, the European Community, the Finnish Development Corporation, the Japan International Cooperation Agency, the Norwegian Development Corporation, the United Nations Children's Fund, and the World Bank are providing aid to this program.

# **Pakistan**

## **World Food Program**

### **Summary of Findings**

The World Food Program (WFP) Pakistan focuses on girls' primary schools in selected areas, some with existing school feeding programs and some with new feeding programs. The long-term objective is to promote primary education for girls in food-insecure areas and to increase girls' literacy rates overall. The target is to be achieved by concentrating efforts in those areas that have shown very low enrollment and retention rates. Edible oil is used to enable the girls of poor families to attend these schools. Each month during the nine-month September-June school year, the girls receive one four-liter tin of oil each provided they attend school for a minimum of 20 days a month.

Approximately 75,000 of the children who receive assistance in 2001-02 do so with 2001 food contributions from the U.S. Department of Agriculture's (USDA's) Global Food for Education (GFE) program. Girls' enrollment increased 43.7 percent in the schools with existing school feeding programs over the last three years. Because the targeted schools are for girls only, this increase cannot be compared with rates for boys. As enrollment has increased, so have student/teacher ratios and class size. Class size increased to 32 students per classroom from 15.

In the schools in which the school feeding program is new, enrollment has increased 17 percent compared with the level three years ago, and class size has increased to 23 students per classroom from 16.

### **Country Overview**

Pakistan is a low-income, food-deficit country with a per capita income of \$460 per year. The country imports about 15 percent of its basic staple, wheat. Pakistan faces enormous political, economic, and social challenges. The World Bank estimates that in 1998 some 30 million people or 23 percent of the population lived in "consumption poverty" (a measure of the minimum acceptable standard of private consumption). The poor in Pakistan are disproportionately rural and female. Some 52 percent of Pakistani women suffer from "poverty of opportunity" (an index combining health, education, and income), compared with 37 percent of Pakistani men.

Pakistani girls are brought up to marry young and remain at home. They represent only 18 percent of the children in rural schools. As a result, in a country where the overall literacy rate is just 37 percent, literacy among girls is half that of boys. Most women in rural areas cannot read or write.

Ninety percent of government primary schools lack water and sanitation facilities, and more than 50 percent have no shelter or lack boundary walls. Combined with the cultural constraints on girls' mobility, these conditions negatively affect girls' enrollment.

### **Commodity Management**

USDA provided 5,860 metric tons of vegetable oil in support of the WFP Pakistan activity titled "Assistance to Girls' Primary Education." The vegetable oil arrived in Karachi in late January 2002, approximately one month behind the originally scheduled arrival date.

### **Project Overview**

The provincial education departments are the main implementing partners of this activity. By encouraging girls and their parents to view school attendance as normal and acceptable, this activity contributes to social change by addressing the issue of female mobility in traditional and conservative communities. Mobility is a prerequisite for any intervention aimed at changing the socio-economic situation of women. Food aid is used as an enabler to attract and retain girls in primary education, the first step on the development path.

This program and the GFE-funded expansion contribute to the target set out in the Pakistani Government's Poverty Reduction Program (PRP), which the United Nations Development Group helped to develop. The PRP aims to accelerate enrollment, focusing on girls. WFP's Pakistan Country Office completed a baseline survey in December 2001 and began food distribution that same month. The contributions are expected to last 18 months.

The intended outcomes of this activity are to increase enrollment, attendance, and retention rates at selected girls' primary schools in targeted areas. In its 2001-2003 Country Program Plan, WFP plans to reach 44,000 girls currently enrolled in the 1,800 selected schools in targeted areas. These girls will receive a monthly take-home ration of four liters of edible oil over the three-year period if they remain in school. WFP also plans to reach another 100,000 girls who are expected to enroll in these schools and receive the same take-home ration over the three-year period. With the additional resources provided through the GFE program, WFP expects to reach another 84,000 girls.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has provided a checklist for "Minimum Requirements for Rural Primary Schools in Pakistan" in order to ensure that WFP is not attracting girls to sub-standard schools. The checklist covers items such as adequate buildings, qualified teachers, and the availability of teaching materials, latrines, and drinking water. WFP will work with federal and provincial authorities to ensure the availability of basic infrastructure as suggested by UNESCO. WFP uses a food-for-work program to provide drinking water, latrines, and boundary walls.

## **Project Impact**

The average ratio of student to teacher has increased from 14 students per teacher to 30 over the last four years. Today, in elementary schools across Pakistan, girls sit side-by-side, learning the basics of reading, writing, and arithmetic, something that would have been unimaginable just a few years ago.

## **GFE in Action**

Eleven-year-old Bibi Jwaaher told her classmates she wants to continue her studies beyond the fifth grade. Classmate Sajaada Bibi, also 11, said she plans to pursue a higher education in Islamic studies. In a region where it is rare to see a woman outside the mud walls of her home, mothers now come to school to pick up oil every two months and to discuss their girls' performance.

In a village outside Quetta in the rugged and dry Baluchistan region, a group of concerned parents used WFP's offer of oil (an indispensable and highly sought-after cooking item) to convince their village leader to find a building to house two tiny classrooms. When the school opened, the response was so overwhelming that the building was unable to contain all the students. Indeed, many classes must be held outside. Despite the lack of space, girls' enrollment has doubled at the school, as well as across Baluchistan. Attitudes are changing. Increasingly, mothers point out the advantages an education may provide to their daughters.

# Tajikistan

## World Food Program

### Summary of Findings

Food donations are highly valued in Tajikistan. Because of this, the use of food as an incentive for increased enrollment and attendance, and to help provide more adequate school resources, has been positively received in Tajikistan. Low enrollment figures recorded three years ago continue to increase, rising 30-35 percent in just the last two years. In existing school feeding programs, attendance levels average 78 percent overall, and 83 percent for girls alone. In schools newly introduced to the school feeding program, attendance levels for the same year average just over 73 percent.

### Country Overview

Tajikistan's 6.1 million people live in the poorest country in Central Asia, with an annual per capita gross domestic product (GDP) of \$330. According to the 1999 United Nations Development Program (UNDP) Human Development Report, the Human Development Index for Tajikistan is 0.665, ranking it 108<sup>th</sup> among 174 countries. Tajikistan is categorized as a low-income, food-deficit country.

Only 7 percent of Tajikistan's area is arable. The rest is covered either by mountains or deserts. Agriculture is traditionally the primary sector of the economy. Most of the cultivated land is irrigated. Cotton, the major cash crop, depends entirely on irrigation. The deteriorating irrigation infrastructure, obsolete machinery, and the lack of arable land have had severe consequences for agricultural output. The pressure to earn foreign currency, together with declining yields, has led the Government of Tajikistan to increase the amount of land cultivated for cotton at the expense of cereal production. Moreover, cereals have suffered a significant decline in per-hectare yield due to unfavorable weather, deteriorating irrigation facilities, brown rust, smut, and the lack of funds to procure necessary inputs.

Official unemployment is around 40 percent, and inflation has ranged from 630 percent in 1995 to 43.4 percent in 1998. An estimated 85 percent of the population is below the poverty line.

Social indicators are rapidly declining. The historically strong educational system is crumbling with the decay of school buildings and lack of teachers, textbooks, furniture, and heating. Many families are unable to provide their school-age children with clothing and shoes. This is leading to the social problem of street children, who are prone to falling prey to criminals, drugs, and child-labor abuse. The health status of the population

has declined with increased poverty, poor housing, the low quality of water supplies, poor nutrition, and a near-collapse of health services. It is the poor who suffer most from the inaccessibility of basic health services and medicines.

The rapid deterioration of the health care infrastructure and a changed diet, with less nutritious food, have resulted in a female anemia rate of 70 to 80 percent and a 60-percent malnourishment rate among expectant mothers. According to the World Bank, about 1 million people in Tajikistan are destitute and experience acute or chronic food insecurity.

Tajikistan used to boast a literacy rate of almost 100 percent. After the collapse of the former Soviet Union and the grueling civil war, the educational system is in disarray. Primary school attendance rates have fallen to about 65 percent. The WFP, therefore, intends to promote school attendance and improved child nutrition through the continuation of its school feeding program, in collaboration with international and national non-governmental organizations.

### **Commodity Management**

USDA provided wheat flour and vegetable oil for use in the Tajikistan school feeding program. The flour and oil are both fortified for increased nutritional value.

<b>Commodity</b>	<b>Metric Tons</b>	<b>Arrival</b>
Wheat flour	380	November 2001
	3,290	January 2002
Vegetable oil	350	December 2001

### **Project Overview**

All surveys show a trend of worsening malnutrition, especially among children. Malnutrition is a problem across the country, but the most affected regions are Khatlon and the autonomous region of mountainous Badakhshan. In these areas, the WFP directly implements free food distribution.

Students receive 175 grams of wheat flour, 15 grams of vegetable oil, and 5 grams of iodized salt. The feeding program provides rations for 180 days. The program provides rations for 11,000 students, including 5,000 males and 6,000 females.

The main emphasis of this project, however, is rehabilitation and the creation of sustainable assets through food-for-work activities to target hungry poor people who are willing and able to move toward self-sufficiency. Most of the activities are related to rehabilitating infrastructure, the land-lease program, and the rehabilitation of schools.

Targeting is based on households that are the most food-insecure. The following factors affect this:

- Land availability of less than 1 hectare.
- Household without livestock.
- Household without an adult male.
- Household without savings.
- Female-headed household.
- Single pensioner only (urban area).
- Returnee household.
- Evidence of negative coping mechanisms, such as keeping children out of school.

### **Project Impact**

Greater impact can be measured in schools where the WFP was already conducting school feeding programs than in those school that are new to the program. However, the ability to review both new and existing schools allows for greater analysis and comparison values.

Low enrollment figures were recorded three years ago and now continue to increase, up 30-35 percent from levels just two years ago. In existing programs, attendance levels have averaged 78 percent for boys and girls combined, and 83 percent for girls alone. In schools newly introduced to the school feeding program, the attendance levels for the same year averaged just over 73 percent.

Financial hardship was cited as a greater impediment to sending children to school in the schools newly participating in the school feeding program (24 percent compared with 13 percent in schools with pre-existing programs). The high value of food to the families sending their children to school can be directly linked to this cost perception among surveyed families.

**Other donor support:** The WFP works with two international organizations. Mission Øst provides supplementary free food distribution and Food for Work projects in the Khatlon region, and Action Against Hunger supplies supplementary feeding for malnourished children, also in the Khatlon region.

## **Vietnam**

### **Land O'Lakes, Inc.**

#### **Summary of Findings**

During the pilot program which operated from January-May 2002, 65,000 beneficiaries in 301 school locations received daily rations of ultra-high-temperature (UHT) milk. Land O'Lakes (LOL) and the Vietnamese Ministry of Education and Training (MOET) launched a pilot program as they waited for Government of Vietnam approval of the larger school feeding program. With government approval, the school feeding program will be expanded to 315,000 beneficiaries per day in the 2003 school year. Fortified wheat biscuits will be provided with the UHT milk. A de-worming program was successfully implemented in all Global Food for Education (GFE) schools. The monetization process generated proceeds two percent over budget. The LOL GFE school feeding project will continue through May 2003.

#### **Country Overview**

Vietnam is the second most populous country in Southeast Asia, with a population of almost 79 million of which 40 percent are concentrated in the Mekong River and Red River Deltas. Agriculture, fishing, and forestry account for 70 percent of employment but only 25 percent of gross domestic product (GDP).<sup>62</sup>

Beginning in 1986, Vietnam launched a series of economic reforms. Key elements include decentralization of state economic management; autonomy to state-owned enterprises; replacement of administrative measures and controls by economic ones, particularly the use of market-oriented monetary policies to control inflation; acceptance of market-based exchange rates; and implementation of agricultural policies that allow for long term user rights and greater freedom in product marketing.<sup>63</sup>

Collective rice production was phased out in the late 1980's and Vietnam soon became a net exporter of rice. Rural families now have much greater choice on how to best manage agricultural land, and the result has been diversification toward higher value cash crops. In addition to being the world's number two rice exporter, Vietnam is now the world's third largest exporter of coffee.

These economic changes are occurring in the context of a "young" country where 70 percent of the population is 34 years of age or younger. More than half the population is under 25 and nearly one-fourth of the population is between the ages of 5 and 14. This age distribution places a special pressure on health and educational institutions to provide services to a large and still growing population.

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<sup>62</sup> CIA – The World Fact Book 2001.

<sup>63</sup> U.S. Department of State. Background Note: Vietnam, July, 2001.

Despite impressive economic achievements in recent years and a sharp reduction in poverty rates, Vietnam remains one of the poorest countries in the region with a per capita GDP of about \$380 per year. Vietnam ranks 51<sup>st</sup> out of 92 developing countries on the Human Poverty Index. More than 90 percent of the population lives on \$5 per day or less, and 45 percent of the people in rural communities live below the poverty line.<sup>64</sup> The incidence of poverty varies by region, with the highest poverty rate in the northern mountainous region. About 75 percent of the people live in rural areas that lack adequate sources of potable water.<sup>65</sup>

The Child Nutrition Center in Ho Chi Minh City estimates that children living in rural areas receive only 70 percent of their daily calorie requirements, and a significant percentage travel long distances to school on empty stomachs.<sup>66</sup> Schools participating in the pilot school feeding program in the Mekong River Delta region report that anywhere from 20-50 percent of students do not have a breakfast. The U.S. Department of Agriculture's (USDA's) GFE monitor reported even higher percentages of children who come to school without breakfast.

Although 51.5 percent of the children were underweight in 1985 and improvements have been made over the last 10-15 years, the malnutrition rate in Vietnam still remains very high, particularly in the rural and mountainous regions.<sup>67</sup> Reducing malnutrition continues to be a high priority for the Government of Vietnam.

The 1990's was a decade of progress for primary education in Vietnam. Improving access to primary education and the eradication of illiteracy were major government goals. By 2001, this effort resulted in a nationwide literacy rate of 90 percent and enrollment and attendance rates at more than 90 percent.<sup>68</sup>

Although reported enrollment of primary school aged children is 100 percent, there is significant room for improvement in secondary and high school enrollment. As shown on the chart on the following page, while 48 percent of all students are primary school students (100 percent of the eligible population), only 27 percent of all students are secondary school students, representing a significant drop-off in enrollment after primary school, even considering age distribution.<sup>69</sup>

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<sup>64</sup> World Food Program, Vietnam 25 Year Review, Dec. 2000

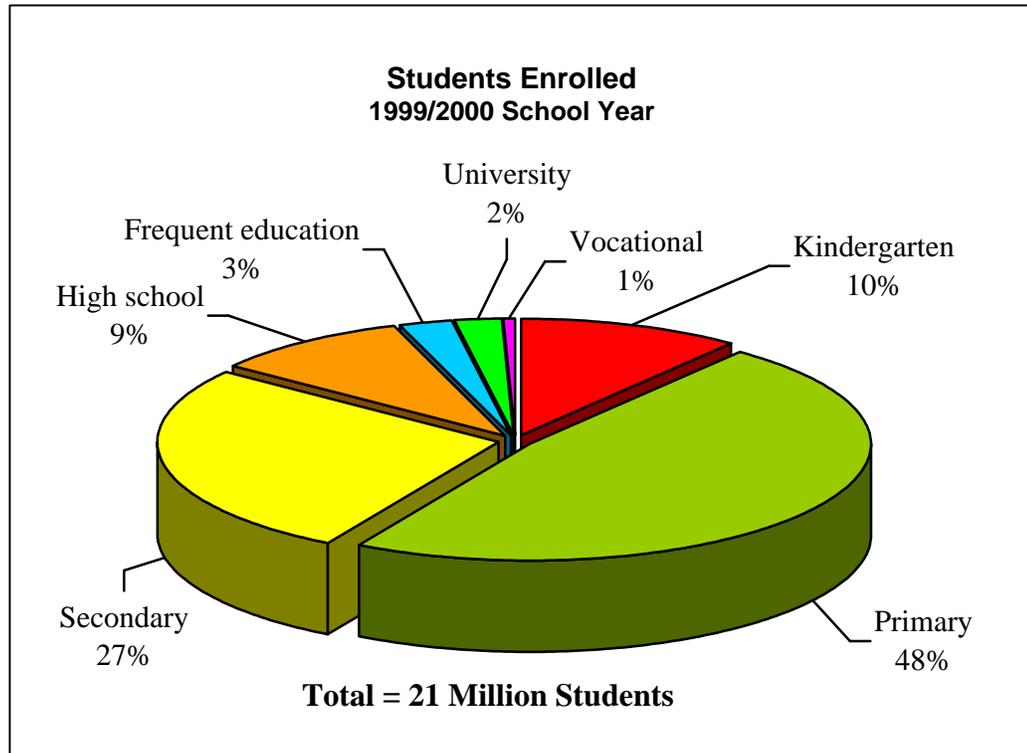
<sup>65</sup> Ibid.

<sup>66</sup> Dr. Nguyen Thi Kim Hung, Director, Child Nutrition Center, Ho Chi Minh City, Vietnam

<sup>67</sup> Ibid.

<sup>68</sup> Primary Education Department, Ministry of Education and Training (MOET), Hanoi, April 2002.

<sup>69</sup> National Statistics Office, Tetra Pak.



Despite increasing enrollment and promotion rates during the 1990's, dropout and repetition rates remain a concern in Vietnamese primary education. Ministry of Education and Training data indicate that the repetition and dropout rates for the 1999-2000 school year were 2.8 percent and 4.7 percent, respectively, or 7.5 percent in total. Grades one and five are the most problematic grades for students.

### **Commodity Management**

The agreement between LOL and USDA was signed Aug. 3, 2001, to implement a GFE project in Vietnam using a donation of more than 43,000 metric tons of U.S. agricultural commodities. Later that month, the Vietnam School Feeding Program (VSFP) was announced.

The requested commodities were shipped in November 2001 and arrived in Ho Chi Minh City in late December 2001. The commodities were sold directly to Vietnamese agricultural processors and traders to provide the funds for the VSFP.

In the beginning, there was no storage, so the milk was stored in the teacher-room on the bookshelves. There were a lot of rats, so the teachers assigned one teacher each night to sleep in the room to scare away the rats. –USDA Monitoring Report

<b>Commodity</b>	<b>Metric Tons</b>	<b>Proceeds Generated</b>
Hard red wheat	19,952	\$2,699,266
Soft winter wheat	6,968	\$943,105
Soybean oil	15,000	\$2,782,480
Non-fat dried milk	1,303	\$2,606,250
<b>Total</b>	<b>43,222</b>	<b>\$9,031,100</b>

While the other three commodities were sold, the non-fat dried milk valued at \$2.6 million was used in the production and bartered with a large state-owned milk processing company in exchange for 16,087,963 units of finished 200-milliliter UHT milk to be distributed directly to the schools. A total of 3,479,172 units of milk were distributed and consumed through March 31, 2002, with an additional 3.5 million units estimated to be distributed through the end of the 2001/2002 school year. The balance of the barter contract will be supplied in September and October at the start of the 2002/03 school year.

At that time, the fortified biscuits made with U.S. wheat will also be distributed. Indications from the Ministry of Planning and Investment are that all processors supplying milk and biscuits to the program will receive a value added tax (VAT) rebate. The LOL-VINAMILK barter contract has a clause that states that in the event of any VAT rebate, all savings will be passed back to the school feeding program in the form of additional quantities of milk units, estimated to be another 1.65 million units more than the contract-stipulated total. Similar clauses will be included in any future milk and biscuit contracts.

### **Project Overview**

Most children in rural Vietnam travel long distances to get to school, and many arrive without having eaten breakfast. A healthy snack provided by the VSFP would give these children micronutrients and calories that would reduce their hunger and should lead to improved performance and a better quality educational experience. A positive educational experience would encourage more students to go on to secondary and high school, where enrollment rates are currently 60 percent and lower – significantly less than the government-reported 100-percent rates for enrollment at the primary school level. LOL decided to try to have some impact through the GFE project on the dropout and repetition rates seen in grades one and two.

In the LOL-USDA agreement, LOL proposed to carry out a large distribution program. This would include delivering milk and nutritious biscuits as a daily snack to 400,000 primary school children in several targeted regions of the country to be chosen by a committee of government and private sector representatives. However, the Government of Vietnam does not allow international donor projects of more than \$500,000 to be implemented without concurrence of all government ministries. This approval process can take a long time. Therefore, LOL and MOET agreed to carry out a small pilot project feeding 65,000 primary school students in the Mekong River Delta region.

The Delta area was chosen for the pilot because of the high dropout rate the region experienced during the October-December rainy season, when flooding was unusually heavy. The Delta region's proximity by automobile to Ho Chi Minh City (three to five hours) would allow both LOL and the processors to monitor logistics and manage other reporting issues carefully in the pilot phase.

Both LOL and the Government of Vietnam wanted to implement the VSFP pilot project as soon as possible in order to reach hungry children and also to reduce the time for the approval of the project expansion to the original GFE project size. Because the commodities, and the revenues from their sale, would not arrive until the end of December 2001, LOL decided to advance its own funds so that the project could begin in September. The staff immediately began the implementation planning and startup activities. In early January 2002, milk distribution began to 65,000 beneficiaries daily in 301 school locations in the Mekong River Delta region.

The VSFP daily nutritious snack consists of a 200-milliliter carton of fortified milk and a nutritious wheat biscuit. The two products combined provide the children with 300 calories and about 50 percent of the recommended daily allowance (RDA) of needed vitamins and minerals. The 300 calories represent about 60 percent of the estimated calorie deficit facing children in rural Vietnam. The snack, combined with planned deworming twice a year, is expected to have significant impact on the nutritional status of children participating in the program.

An additional component of LOL's GFE project is to strengthen the production capacity of dairy and food producers in the private sector. Technical assistance through LOL and other technical specialists will be targeted at those producers with the goal of expanding their capacity and improving the quality of their products.

**Goals and objectives:** The goals of the VSFP are to increase enrollment and attendance by 20 percent and increase overall performance in primary schools. LOL staff also expect to improve dairy and food processing operations in the country.

**Implementation status:** To date, the most significant challenge for LOL has been the Government of Vietnam's requirement that all foreign non-governmental aid programs valued at more than \$500,000 undergo an extensive review and approval process that can take anywhere from three to eight months. While government officials conducted the review of the LOL GFE proposal, LOL and its lead partner, the Ministry of Education and Training, launched a pilot program so that milk could be distributed to students in the second half of the 2001/2002 school year. The pilot experience provided the VSFP an opportunity to gain product, distribution, and program implementation experience needed to expand the program to 315,000 beneficiaries in the central and northern regions of Vietnam. In July 2002, VSFP received official notification from the government that the program can be expanded for the 2002/2003 school year.

<b>Vietnam School Feeding Program</b>		
<b>Criteria for Measuring Progress:</b>	<b>Status of Achievement</b>	<b>Comments</b>
400,000 children to receive milk and biscuits daily.	Distribution of UHT milk in 200 ml packs began January 2002 for the pilot project, feeding approximately 65,000 students and staff at 301 school sites primarily in the Mekong Delta region. Fortified biscuit distribution will start in September at the beginning of the 2002/03 school year.	A five-month pilot was initiated while VSFP awaited government approval. Based on resources expended on the pilot, LOL submitted an extension request to feed 315,000 beneficiaries per day in the 2002/03 school year. About seven million servings of milk were distributed during the pilot.
20% increase in enrollment and attendance.	No significant changes in official enrollment and attendance rates have yet been documented. Reports suggest a 1-2% increase in enrollment and attendance.	Vietnamese primary school enrollment and attendance rates are high, but exactly how high is the question. Gathering accurate enrollment and attendance statistics is difficult as school officials feel pressured to report low dropout and high attendance rates to meet goals established in 5- and 10-year plans. It will be difficult for VSFP to measure impact in this area.
15% increase in number of girls attending school.	No significant changes in enrollment and attendance rates were documented in the first three months of feeding.	Official attendance rates are high for girls, but reports indicate attendance differences between boys and girls.
50% increase in basic nutritional knowledge among participating school children.	Education on nutrition and the environment will be added in the 2002/03 school year.	VSFP is working with MOET, Nutrition Institute, and Tetra Pak to ensure appropriate themes and integration.
Technical assistance to processors.	To be determined.	Developing the fortified biscuit product is one identified area for assistance. Other areas of possible assistance are product development and improving taste of product.

LOL has been very effective in coordinating its project with a number of governmental and non-governmental organizations. Examples include:

- MOET's Primary Education Department is LOL's lead partner in the VSFP. LOL works with a small management team in Hanoi, as well as with government representatives at the province and district levels. This partnership provided LOL direct access to primary schools and allowed for a quick startup of milk delivery to students.
- The Nutrition Institute (Ministry of Health) will continue to work with the VSFP to develop the nutrition education component of the program to be implemented at the start of the 2002/03 school year. District and local level offices assist in the de-worming program.
- Under a contract with LOL, the Vietnam Red Cross, which has a nationwide network and local connections, monitors school level participation on a random, spot-check basis. It ensures that schools follow program guidelines and alerts LOL if other problems or issues are identified during school visits. The Vietnam Red Cross was particularly valuable in alerting LOL to the carton disposal and environmental issues.
- Tetra Pak and its Ho Chi Minh City office provided startup support in the form of staff time and office space during October–December 2001. Tetra Pak is also offering packaging discounts to suppliers and has designated staff from its Singapore office to work with LOL to come up with solutions for dealing with empty cartons in a country with no rural garbage collection system.

**Other donor support:** During June-August 2002, LOL will be seeking to identify linkages with other groups working in the areas of nutrition education and education support programs. LOL has collaborated with a French company on development of a fortified biscuit.

As discussed previously, LOL has developed significant support from other agencies of the Vietnamese government and the private sector. The Ministry of Health has added a de-worming component to the VSFP. The National Nutrition Office has also been involved in technical assistance with nutrition education.

**Sustainability:** LOL worked with the Vietnamese Government to establish the organizational capacity within Vietnam to assume management responsibility for a school feeding program.

**Monitoring and evaluation:** Both USDA and LOL are carrying out monitoring and evaluation activities of the pilot project.

There are 301 schools participating in the VSFP pilot project. Ninety-six are centrally located main schools, and 205 are branch locations of those main schools. Enrollment in these schools ranges from the 1,300 students to only five students, with the main schools generally being much larger than the branch locations. The 96 main schools were

grouped based on geographic location and a median per school enrollment of 360 students. One school, ThoTraan, was pre-selected for analysis because its enrollment of 1,300 students was by far the largest.

### **Project Impact**

**Enrollment and attendance:** Overall numbers show no significant change in enrollment and attendance rates in the first three months of the VSFP, and no change is expected in the April-June reporting period. Pressure on schools and administrators to meet enrollment and attendance goals established in Hanoi make it difficult to accurately track improvements in enrollment and attendance. The following chart illustrates the high rate of attendance in the three pilot areas. The reason that children do not enroll in or attend school is usually the difficulty of travel. In many cases, it can take two to three hours by boat or walking to reach the school. Children are also absent or not enrolled because of the need for them to help on the farm or to watch younger siblings.

**Special emphasis on girls:** Primary school enrollment and attendance figures for boys and girls are comparable. The reasons children have to miss school are the same for boys and girls, but girls are kept home to help more often than boys. LOL is examining a number of non-food strategies to implement for the 2002/03 school year to promote school attendance by girls.

When harvest season comes, some of the pupils in poor families—especially in grades four and five—have to help their parents in the field. The girls are in the same situation as the boys, but they spend more days than boys in the field. –USDA Monitoring Report

**Other project achievements:** One of the objectives of the LOL-GFE project is to stimulate private sector processing and distribution of processed products to schools. LOL has observed that many high-quality milk and cookie products are never distributed beyond urban centers. Working with VSFP will help processors gain experience and access to more remote areas and markets. LOL plans to focus on this area in the coming months. Initial areas of concentration will be in product development and taste improvement.

### **Unanticipated Outcomes**

Fortified biscuit products developed through VSFP could have a commercial future. Much of the population suffers from a serious micronutrient deficiency, and fortified biscuit products are not available on the market. The fortified biscuit product developed by VSFP can be purchased and delivered to remote rural communities for the same price as children pay for “junk” food items sold at local kiosks. LOL is encouraged to think that if the VSFP-developed fortified biscuit is priced competitively, it could have a commercial future.

## **Lessons Learned**

LOL originally planned to feed more children sooner. However, the pilot program worked well given the bureaucratic obstacles, distribution and infrastructure issues, product development and packaging cycles, and timing of commodity arrival. Over the course of the 5-month pilot, the VSFP staff learned the following lessons that will be incorporated into the larger program:

- Sweetened, fortified milk works best. Milk sold commercially in Vietnam is sweetened and/or flavored. For the first three months of the program, a commercially sold sweetened formula was used in the VSFP. After the third month, LOL asked VINAMILK to produce an unsweetened run (10,000 units) to test with the children. Although the tests were not scientific, the unsweetened milk was not popular. Popular taste preferences, coupled with the approximately 500-calorie daily gap for children living in rural communities, drove the decision to switch back to sweetened milk. The extra calories are not “empty” in rural Vietnam. The milk formula will also be adjusted to include additional vitamin A and D.
- Fortified biscuit/snack products do not exist in the commercial market. The LOL team has been working with four different biscuit manufacturers to develop a tasty, 150-calorie/30 gram wheat biscuit fortified with 50 percent of the recommended daily allowance (RDA) of vitamins and minerals. Because there are no fortified biscuit or snack products available in the market, processors must go through a cumbersome approval process with the Vietnam Food and Drug Administration.
- Educating parents about micronutrients and the benefits of fortified products will be a key part of sustainability. VSFP staff has learned from the pilot project that there is a need to include parents in the nutrition training process. Many parents do not fully appreciate the nutritional value of milk and often have concerns that too much milk will cause a child to be “obese.” The VSFP will include parents in future nutrition education efforts so that they are fully aware of the importance of the milk and fortified biscuits in improving the physical and mental health of their children.
- Change in packaging materials will increase the number of children that can be fed. The 2002/03 VSFP will use a combination of brick or box-shaped (30 percent) and fino or pouch (70 percent) packaging. LOL has decided to switch because of a 2-cent per serving savings. The capacity of the existing Tetra Fino lines currently operating in Vietnam is about 70 percent of target numbers. Tetra Pak has offered to further discount the Tetra Brik packaging (discount increased from 5 percent to 10 percent) for the remaining volume as a way to show support for the program.
- Empty carton and biscuit wrappers create a garbage problem. VSFP needs to find a better way to dispose of empty milk cartons because rural communities do not have a formal system of garbage collection. The empty cartons (and future biscuit wrappers) are more garbage than some communities have ever seen, especially at small branch school locations. The current practice is to burn the cartons in shallow holes very near the school. LOL will have to develop a better trash disposal system and ensure that appropriate education and training is conducted to ensure schools dispose of their garbage in the most logical, environmentally safe way.

- The most efficient approach to deliver products to the schools is for the suppliers to deliver to the branches and let the teachers teach. The pilot program fed 65,000 beneficiaries at 96 schools and 301 locations. Providing product directly to branch schools will have to be kept in mind for the expanded program. As new schools are added, it will require training more school staff.
- Identifying key people responsible for recordkeeping is essential. LOL understood the importance of accurate recordkeeping and did a thorough job in training school staff to assume responsibility for tracking inventory and consumption. However, the people trained did not do the recording and did not teach others how to do accurately. The need to complete forms accurately and on a regular basis has been a learning experience for school staff.
- “Three strikes and you’re out” needs to be the rule. Some schools do not take the program guidelines seriously and do not maintain accurate records or adequately store the milk. This lack of responsible cooperation cannot be accepted, especially as the program expands. The team is working to develop a warning system that will allow a school two chances to improve its reporting, storage, and/or garbage disposal systems. If the school does not improve or at least show a serious effort, then it will be removed from the program.

### **Best Practices**

- From the very start, the LOL-VSFP has responded to feedback and made efforts to modify activities as appropriate. A good example of this responsiveness was the LOL project director’s immediate response to the USDA’s regional coordinator’s suggestion to incorporate de-worming as part of the VSFP. A de-worming program was implemented in all 301 locations, and it seems to have resulted in weight gain for some of the children.
- On LOL’s initiative, it and its cooperating partners monitored possible problems associated with lactose intolerance in the student population. Despite concerns, there were no significant problems associated with lactose intolerance, although VSFP will continue to monitor as the program continues.
- By involving multiple processors to ensure competitive pricing and using more than one supplier, the program will stimulate private sector processing and distribution of processed products to schools in rural communities. Although the VSFP will use multiple processors, the processors are required to use VSFP-only designated packaging design. Packaging will indicate that it is a gift from U.S. farmers to the children of Vietnam and that the product is not for re-sale.

### **Next Steps**

LOL recently received clearance to operate the expanded program. Target regions for the 315,000 students to be fed next year have been identified: Dong Thap and Long An Provinces in the Mekong River Delta region; Bac Can Province in the northern mountainous region; Quang Tri Province in the north-central coastal region; and Quang

Nam and Binh Dinh Provinces in the central coastal region. The neediest districts of these provinces will be targeted to participate in the VSFP.

LOL needs to resolve the garbage issue. Tetra Pak is working with LOL to come up with a solution that makes the most sense given the conditions in Vietnam. One option is a burner that Tetra Pak is currently testing in Thailand. LOL continues to explore recycling options, but given the location of the schools (in three distinct regions) and the volume of containers, the feasibility of this option is uncertain.

LOL will develop the nutrition education component to VSFP. LOL will design three to five simple lessons to supplement health and nutrition lessons in the existing curriculum. Tetra Pak is also working with the program to develop some environment and education messages that can be included in the packaging design.

LOL is working to improve its database to track enrollment, attendance, and consumption. VSFP is working with the LOL-Bangladesh school feeding program to develop a more efficient/accurate data collection system. During the last two weeks of the 2001/02 school year which ended June 20, the new system was tested in Dong Thap. VSFP plans to work with the Bangladesh school feeding program to develop a regional database to share and track trends by region. LOL anticipates that Indonesia and the Philippines, sites of existing and possible USDA-supported school feeding programs, would be included in this regional database as well.

### **GFE in Action**

Teachers at Hung Dien B Primary School (Tan Hung, Long An) report that many pupils have experienced rapid weight gain after three months of consuming milk. For example, student Nguyen Ngoc Dang of class 5/1 gained five kilograms (11 pounds). He weighed 35 kilograms (77 pounds) before but now weighs 40 kilograms (88 pounds). Pupils Duong Thanh Nam (class 4/1) and Nguyen Cong Danh (Class 2/1) both gained four kilograms (around 9 pounds).

Primary school An Thoi Dong is a very quiet area, even though it's in the center of An Thoi Dong ward. At 8:50 a.m., the school drum sounds three times, and the school comes alive with the sound of students shouting for joy. Despite their noise, the children remain seated. Tran Van Lang, the man responsible for receiving and distributing milk at this school, explains, "This first set of drum beats is the signal that it is milk time." Then the drum beats 10 minutes, telling the teachers it is time to collect milk for their students. This is why the students wait patiently at their desks. After the milk is consumed, the drum beats again indicating that the children can go outside and play for their morning recess. Since the beginning of the milk program, the children at An Thoi Dong Primary School call the first morning drum beat the "milk drum beat" and it is their favorite drum beat of the day.

A teacher in a primary school in Dong Thap said: "I'm very grateful to the school milk program because, thanks to this program, I rarely have to encourage children to go to

school. The children become so milk-addicted that the attendance is normally 100 percent. During school time, they just look forward to milk time. Sometimes I forget about milk time and they remind me right away. They rush out with eager faces whenever I bring the milk to the classroom.” Another teacher reported, “There are 38 pupils in my class. Most of them love to drink milk. Lately, the only time they are absent from school is when they are sick. When they came back, they often comment that being sick meant that they missed having milk that day. School milk really helps us a lot in attracting pupils to schools.”

At Khanh Hung Primary School, the parents of a third grade pupil came to see the teachers and requested them not to give their son more milk, complaining that “my child is gaining weight too fast. Only last month, I bought him a new set of clothes, but today they do not fit anymore. We are afraid he will be obese.” The principal explained that gaining weight is a good sign, and their son will not become obese from drinking milk. However, the parents did not believe the school principal and took their son to a local clinic for examination. Only after the doctor concluded that the boy’s health and weight were fine did the parents calm down and listen to their son’s urgings that they allow him to keep drinking the milk.

The vice headmaster at the Binh Khanh Primary School welcomed an LOL representative with obvious pride and joy. “Look at the children,” he said. “After three months of drinking milk, they are all healthier and more energetic. I can see the change in their faces – looking brighter. Many of them gained weight.”